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**Biermann et al.**

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(54) **SPUR DIFFERENTIAL GEAR**

(58) **Field of Classification Search**

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None

See application file for complete search history.

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**ABSTRACT**

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A spur differential gear, including a planet carrier having a rim gear carrier with a plurality of radially inward protruding segments circumferentially displaced from each other creating windows therebetween, and first and second hubs fixedly secured to opposite axial sides of the plurality of segments, wherein the components of the rim gear carrier are non-rotatably connected to each other, first and second output gears, a revolving planet arrangement contradiirectionally rotatably coupling the first and second output gears via a plurality of circumferentially displaced planet pairs, each planet pair including first and second revolving planets configured to rotate around their own planet axes, wherein the first and second revolving planets revolve with the planet carrier around the axis of rotation and are rotatable opposite it around the first and second planet axes, respectively, wherein one of the plurality of planet pairs is accommodated in each of the plurality of window segments.

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(52) **U.S. Cl.**

CPC ..... **F16H 48/11** (2013.01); **F16H 2048/106**  
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**9 Claims, 6 Drawing Sheets**

